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08/675,665	07/03/96	VAN DER HOOFDEN	J PHN-15.364

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EXAMINER

SHINGLETON, M

ART UNIT

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UNITED STATES DEPARTMENT OF COMMERCE
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 22

Application Number: 08-675,665
Filing Date: 7-3-1996
Appellant(s): Van Der Hoofden

Ronald L. Drumheller
For Appellant

MAILED
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GROUP 2200

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 7-27-1999.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

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(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. The only addition is that the amendment dated 7-26-1999 has not been entered as it raises new matter, new issues and does not place the application in better form for appeal as indicated in paper 21, namely the advisory action dated 9-3-1999.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

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The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because applicant's groupings are conditional. The groupings are conditional upon the entry of after final amendment submitted 7-26-1999 or paper # 20. No indications as to what the groupings would be should the amendment submitted 7-26-1999 not be entered. Therefore all the claims are held to stand or fall together.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief appears to be correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

Number	Name	Date
3,079,525	J.W. Tap	02-26-1963
4,277,728	Stevens	07-07-1981

(10) *New Prior Art*

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No new prior art has been applied in this examiner's answer.

(11) *Grounds of Rejection*

The Final rejection dated 2-17-1999 forms the following ground(s) of rejection applicable to the appealed claims is hereby reproduced for the Board's convenience.

Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant added by amendment the terminology "said (the) secondary circuit through" which lacks proper antecedent basis.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 4-6 in so far as understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Tap.

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Stevens discloses the basic arrangement of the present invention. This includes a DC to DC converter that "generates" a second DC voltage from the first DC voltage. This DC-DC converter has a switching element and a control circuit that controls the switching element at "high" frequency. There is also a "means II" (Now called a "second circuit".) i.e. just a plain old conventional inverter that powers a lamp. How Stevens differs involves the specific arrangement of the DC source.

Tap discloses a specific arrangement of the DC source such that the first DC source, i.e. the battery is added to the "means I" (Now called a "first circuit".) that includes a transformer and this supplies the output load. (Note that some of the power from the battery is transferred directly to the load without passing through the transformer.). The great advantage to adding the first DC source to the second involves the protection of such a circuit during a no load condition. With lamp circuits no-load conditions are common. People have been known to remove lamps with the power still on. Also lamps have been known to break which provides a no-load condition. By unloading the inverter the DC source also becomes un-loaded presenting a dangerous condition to the converter as recognized by Tap.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a DC source that adds the battery or first DC source voltage to the

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one that generates its DC voltage from the first DC source so as to protect against a no-load condition.

Applicant recites a "high-pressure discharge lamp" is employed. Stevens does not recite how much pressure are in his lamps. However, how "high" is "high"? Because of this and the fact that applicant does not set forth a range of pressures the pressure in Stevens lamps are seen being every much as high as that of applicant's. In any case, Stevens does recite that high intensity lamps are employed and it is well known that these have a higher pressure than your typical fluorescent lamp. Thus if applicant meant a lamp that has a higher pressure than the typical fluorescent lamp then clearly Stevens has such. If not given that Stevens discloses that an inverter can power a wide range of lamps, the use of a "high pressure" lamp clearly would have been obvious to one of ordinary skill for it would only be part of the workable range for that of Stevens.

Applicant also recites a "fly-back" arrangement for the DC-DC converter. Tap is seen as having such. However, fly-back arrangements for DC-DC converters are very conventional and conventional in the art. They are art recognized equivalents. As such the employment of such would have been obvious to one of ordinary skill in the art at the time the invention was made.

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(12) *New Ground of Rejection*

This examiner's answer does not contain any new ground of rejection.

(13) *Response to argument*

The 35 USC 112 second paragraph issue.

As to the first issue concerning lacks of proper antecedent basis. It is clear that one skilled in the art could not determine what was meant by “the secondary circuit” as recited by claim 1 and thereby incorporated in all claims dependent thereon.

There is a second circuit recited on line 16 of claim 1 and a secondary winding bridging lines 14 and 15 of claim 1. “The secondary circuit through” could be either one or something altogether different. One just can not tell with any certainty and therefore all the pending claims 1, 2, and 4-7 are indefinite contrary to Appellant’s beliefs.

Note that the non-entered amendment paper # 20 refers to “the secondary circuit” as the “second circuit”.

The 35 USC 103(a) rejection.

The examiner has to respectfully disagree with Appellant here as well.

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A brief overview of the rejection is hereby provided. Stevens shows the basic combination of a DC source powering an inverter or "second circuit". (Note that the claims are not in means plus function format and that the "second circuit" could be met by any number of lamp circuits including the quite conventional DC power applied directly to a discharge lamp via a ballast. While the claims are so broad (See *In re Herz*, 190 USPQ 461 (CCPA)) the examiner has chosen the best art available considering the disclosed invention.) The difference lies in the particular DC source used along with the transistor direct current converter, i.e. "inverter" or "second circuit" as recited in at least claim 1. Tap discloses a DC source that has all the disclosed features of claims 1, 2, and 4-6 as noted in the final office action dated 2-17-1999 and Tap clearly provides the motivation to use such with a variety of transistor direct current converters so as to provide protection against any component damage as the result of a "no-load condition". Thus, Appellant's beliefs are respectfully disagreed with as there is clear motivation to combine specifically recited and the rejection is not improper as the more detailed response below clearly points out. (Note *In re Keller*, 208 USPQ 871).

Let's take a look at the claims in detail and this will rebut all of Appellant's remarks.

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Note that Figure 3 of Tap shows a first circuit composed of at least elements like 14 and 18 that generates a second DC voltage from a battery 5 or first DC voltage. The battery 5 of course has a cathode and an anode. The battery 5 is also the source of power or is the supply "for supplying the first circuit with the first DC voltage". Element 1 is clearly a switching element. The feedback winding for switching element 1 is clearly evident in Figure 3 of Tap which does form part of a control circuit coupled to the switching element and does and is for changing the state of the switching element 1. Elements 10 and 12 are unidirectional elements commonly called "diodes". Element 3 is a transformer having a primary 4 and at least one secondary 11. Just like applicant's invention the battery voltage or first DC voltage is added to a DC voltage produced primarily by the secondary winding 11 of the transformer 3 which is part of a first circuit that generates a second DC voltage. It is this adding of the first DC voltage to the second DC voltage that results in the protection of components during a no load condition as noted in the Final rejection dated 2-17-1999. In other words this feature is attributed to some of the power of the battery 5 of Tap not passing through the transformer, but passes directly to the load or "second circuit". This can be clearly seen in Figure 3 of Tap and just like applicant's invention one end of Tap's battery is directly connected to DC output terminal and the other end is connected to a capacitor circuit that allows the power of the battery to transfer to the other DC output terminal without it all passing through the transformer, i.e. simply put the voltages add. Since not all of the power of the battery goes through the transformer, but passes through the elements like capacitor 14 which is like C2 of applicant's invention, the functional language "thereby avoiding

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power loss that would result if the power directly transferred from the voltage source to the secondary circuit were instead transferred to the secondary circuit through the transformer” is clearly met by Tap and Tap inherently has such a feature. (Note that the ideal “second circuit” would be the inverter, but the claims are just not so limited. Also note that there should be no question that a transistor based inverter and specifically the transistor based inverter 20 of Stevens is a “transistor direct current converter circuit”.)

As noted above the DC summing arrangement of Tap to form a single DC source is the same as that claimed. Now the question of what would motivate one of ordinary skill to use one DC source for another? The common answer is that a DC source is a DC source and the inverter does not care where it gets its DC “fix” just so it gets it otherwise it will not run, i.e. they are art recognized equivalences. In fact to make the combination of Tap and Stevens adjustable or fixed is immaterial as the deletion of a feature in prior art, with elimination of its function, is generally obvious, as well as the addition of make something adjustable, i.e. variable, is generally obvious (See *In re Kuhle*, 188 USPQ 7 (CCPA) and *In re Stevens*, 101 USPQ 284 (CCPA 1954)). However, the motivation goes much deeper and is specifically recited as indicated in the previous rejections. Tap provides specific passages that would motivate one of ordinary skill to use such a unique and useful DC source in place of other DC sources. Note column 5, around line 22 that specifically recites that “the invention can be applied to a large variety of transistor

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direct current converter circuits". The inverter of Stevens is a transistor direct current converter circuit and thus from this passage alone Tap teaches that such summing DC sources can be used with such transistor direct current converter circuits of Stevens or the like. Column 1, around line 23 further recites that in the case where no-load voltages might injure various circuit components, Tap's invention avoids such problems "in a very simple manner". A lamp circuit is commonly known to provide "no-load voltages" which occur mainly from the removal of the lamp for replacement. Most everyone has replaced a fluorescent lamp with the electricity still on and upon which voltages occur that might injure various circuit components not to mention the person replacing the bulb. This provides ample motivation to use a DC source that provides protection as this is the well known and intended use of Tap. The combination would only be using Tap for its well known and intended purpose and thus it would be obvious to one of ordinary skill in the art at the time of the invention to do so.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

A large, stylized handwritten signature in black ink, reading "Michael B Shingleton". The signature is written in a cursive, flowing style with large loops and a long horizontal tail.

MICHAEL B SHINGLETON
PRIMARY EXAMINER
GROUP ART UNIT 2817